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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,802	12/24/2003	Sang Jin Yoon	YHK-0128	9793
34610 7590 01/02/2008 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER NADKARNI, SARVESH J	
			ART UNIT 2629	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/743,802	Applicant(s) YOON ET AL.	
	Examiner Sarvesh J. Nadkarni	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This Office Action is in response to the application filed December 23, 2003, Application Number: 10/743,802 (hereinafter referred to as "application"). The application was published on July 15, 2004, Publication Number: US 2004/0135748 A1. Page and line number references made in this action relate to the originally filed application, not the publication.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: METHOD AND APPARATUS FOR DRIVING PLASMA DISPLAY PANEL HAVING OPERATION MODE SELECTION BASED ON MOTION DETECTED.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

4. As submitted, the Oath and Declaration specifies a particular portion of 37 CFR 1.56 instead of acknowledging the section in its entirety. Appropriate correction is required.

Claim Objections

5. Claim 3 is objected to because of the following informalities: the element “received signal” is not introduced using proper antecedent basis format; the article “a” or “an” is used to introduce an element, whereas “the” or “said” is used to refer to a previously introduced element or step. The element “received signal” was not previously introduced in claim 1, upon which claim 3 depends. Appropriate correction is required.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 2, 4-10 and 11-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 4-10 and 11-17 respectively of copending Application No. 10/968,037. Although the conflicting claims are not identical, they are not patentably distinct from each other because, as illustrated in the side-by-side comparison of these claims in the chart below, the claim language is virtually identical and does not contain any distinguishable elements. Examiner has not included a side by side comparison of all rejected claims to avoid redundancy of argument.

Note: Claims 3 and 18 in the currently examined application use similar claim language to claims 3 and 18 in the copending application. However, claims 3 and 18 depend differently, and therefore, differ in scope and are not explicitly rejected here.

Copending Application 10/968,037	Currently Examined Application 10/743,802
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<p>Claim 1: A method of driving a plasma display panel, comprising the steps of: selecting an operating mode based on the degree in which a data moves; and controlling differently at least one of an arrangement of sub-fields disposed within one frame period and the number of sustain pulses according to the selected operating mode.</p>	<p>Claim 1: A method of driving a plasma display panel, comprising the steps of: selecting an operation mode on a basis of a motion extent of a data; and controlling at least one of a sub-field arrangement arranged within one frame interval and the number of sustaining pulses differently in response to said selected operation mode.</p>
<p>2. The method as claimed in claim 1, further comprising the step of receiving at least one of a signal from a remote controller that remotely controls the plasma display panel, a cable signal connected to different media, and a signal from a mode select switch separately disposed in the plasma display panel.</p> <p>4. The method as claimed in claim 1, wherein the step of selecting the operating mode includes comparing frames of the data to calculate the amount of variations and</p>	<p>2. The method as claimed in claim 1, further comprising the step of: receiving at least one of a signal from a remote controller for remotely controlling the plasma display panel, a cable signal connected to a different media and a signal from a mode selection switch provided separately at the plasma display panel.</p> <p>4. The method as claimed in claim 1, wherein said step of selecting the operation mode includes: comparing said data between frames to calculate a variation amount and then</p>

<p>comparing the amount of variations with a predetermined reference value to select the operating mode.</p>	<p>comparing said variation amount with a desired reference value, thereby selecting said operation mode.</p>
<p>5. The method as claimed in claim 1, wherein the arrangement of the sub-fields includes: at least one selective write (SW) sub-field that selects on-cells in an address period, and at least one selective erase (SE) sub-field that selects off-cells in an address period.</p>	<p>5. The method as claimed in claim 1, wherein said sub-field arrangement includes: at least one selective writing sub-field for selecting on-cells in an address period; and at least one selective erasing sub-field for selecting off-cells in the address period.</p>
<p>6. The method as claimed in claim 5, wherein the step of controlling differently at least one of the arrangement of the sub-fields and the number of the sustain pulse comprises the step of: making the number of the SE sub-fields greater than the number of the SW sub-fields if the operating mode is an AV mode in which the movement degree of the data is great.</p>	<p>6. The method as claimed in claim 5, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is an AV mode in which a motion extent of said data is large, then allowing the number of selective erasing sub-fields to be larger than the number of selective writing sub-fields.</p>
<p>7. The method as claimed in claim 5, wherein</p>	<p>7. The method as claimed in claim 5, wherein</p>

<p>the step of controlling differently at least one of the arrangement of the sub-fields and the number of the sustain pulse comprises the step of: making the number of the selective write sub-fields greater than the number of the selective erase sub-fields if the operating mode is a PC mode in which the movement degree of the data is small.</p>	<p>said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small, then allowing the number of selective writing sub-fields to be larger than the number of selective erasing sub-fields.</p>
<p>8. The method as claimed in claim 1, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is an AV mode in which a motion extent of said data is large, then selecting a first sub-field arrangement in which sub-fields are arranged to have a small contour noise at a moving picture; and if said operation mode is a PC mode in which a motion extent of said data is small, then selecting a second sub-field arrangement in which sub-fields are arranged</p>	<p>8. The method as claimed in claim 1, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is an AV mode in which a motion extent of said data is large, then selecting a first sub-field arrangement in which sub-fields are arranged to have a small contour noise at a moving picture; and if said operation mode is a PC mode in which a motion extent of said data is small, then selecting a second sub-field arrangement in which sub-fields are arranged</p>

to have a wider gray level expression range than the first sub-field arrangement.

9. The method as claimed in claim 1, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small, then controlling the number of sustaining pulses to be smaller than the number of sustaining pulses set in correspondence with an AV mode in which a motion extent of said data is large.

10. The method as claimed in claim 1, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small, then reducing the number of sustaining pulses such that said data can be

to have a wider gray level expression range than the first sub-field arrangement.

9. The method as claimed in claim 1, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small, then controlling the number of sustaining pulses to be smaller than the number of sustaining pulses set in correspondence with an AV mode in which a motion extent of said data is large.

10. The method as claimed in claim 1, wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small, then reducing the number of sustaining pulses such that said data can be

displayed at an average brightness falling in 50% through 80% with respect to an average brightness of said data displayed on the plasma display panel in an AV mode in which a motion extent of said data is large.	displayed at an average brightness falling in 50% through 80% with respect to an average brightness of said data displayed on the plasma display panel in an AV mode in which a motion extent of said data is large.
Claim 11: An apparatus for driving a plasma display panel, comprising: a mode select unit that selects an operating mode based on the degree in which data moves; and a control unit that differently controls at least one of an arrangement of sub-fields disposed within one frame period and the number of sustain pulses according to the selected operating mode.	Claim 11. A driving apparatus for a plasma display panel, comprising: a mode selector for selecting an operation mode on a basis of a motion extent of a data; and a controller for controlling at least one of a sub-field arrangement arranged within one frame interval and the number of sustaining pulses differently in response to said selected operation mode.
12. The apparatus as claimed in claim 11, wherein the mode select unit receives at least one of a signal from a remote controller that remotely controls the plasma display panel, a cable signal connected to different media, and a signal from a mode select switch separately disposed in the plasma display panel; and	12. The driving apparatus as claimed in claim 11, wherein said mode selector receives at least one of a signal from a remote controller for remotely controlling the plasma display panel, a cable signal connected to a different media and a signal from a mode selection switch provided separately at the plasma display

determines the operating mode in response to the received signal.	panel, and determines said operation mode in response to said received signal.
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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Independent claims 1 and 11 and dependent claims 4, 13, are rejected under 35 U.S.C. 102(b) as being anticipated by Kasahara et al., (US 2002/0005857 A1) hereinafter referred to as the “Kasahara Publication”.

10. Regarding claim 1, the Kasahara Publication clearly teaches **a method of driving a plasma display panel** (see at, but not limited to, page 3, paragraphs [0065]-[0067 continued on page 4), **comprising the steps of: selecting an operation mode** (see at, but not limited to, page 9 paragraph [0094] and FIG. 10A and 10B) **on a basis of a motion extent of a data** (see at, but

not limited to page 11 paragraphs [0114]-[0119],) **and controlling at least one of a sub-field arrangement arranged within one frame interval and the number of sustaining pulses differently in response to said selected operation mode** (see at, but not limited to page 11 paragraphs [0114]-[0119] particularly paragraph [0119]).

11. Regarding claim 11 the Kasahara clearly teaches **a driving apparatus** (see FIG. 11 generally) **for a plasma display panel** (see FIG. 11 element 24), **comprising: a mode selector** (see at, but not limited to, page 9 paragraph [0094] and FIG. 10A and 10B) **for selecting an operation mode on a basis of a motion extent of a data** (see at, but not limited to page 11 paragraphs [0114]-[0119], and FIG. 11-13); **and a controller** (see at, but not limited to page 14, paragraphs [0157]-[0163] subfield controller 10 FIG 20) **for controlling at least one of a sub-field arrangement arranged within one frame interval** (see, at but not limited to page 14, paragraphs [0157]-[0158]) **and the number of sustaining pulses differently in response to said selected operation mode** (see, at but not limited to, page 9 paragraph [0094] and FIGs. 10A and 10B).

12. Regarding claim 4, the Kasahara Publication clearly teaches **the method as claimed in claim 1** (see above), **wherein said step of selecting the operation mode includes: comparing said data between frames to calculate a variation amount** (see page 16, paragraph [0183] describing detection of change) **and then comparing said variation amount with a desired reference value** (see page 16 paragraph [0184]-[0186]), **thereby selecting said operation mode** (see page 16 paragraphs [0187]-[0190] describing selected mode of operation and as explained on page 9, paragraph [0094] and FIGs. 10A, 10B, and 21).

13. Regarding claim 13, the Kasahara Publication clearly teaches **the driving apparatus as claimed in claim 11** (see above), **wherein said mode selector compares said data between frames to calculate a variation amount** (see page 16, paragraphs [0182]-[0186]) **and then compares said variation amount with a desired reference value** (see page 16 paragraph [0184]-[0186]), **thereby selecting said operation mode** (see page 16 paragraphs [0187]-[0190] describing selected mode of operation and as explained on page 9, paragraph [0094] and FIGs. 10A, 10B, and 21).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 2, 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kasahara Publication as applied to claim 1 above, and further in view of Boger (US 6,724,351 B1) hereinafter referred to as "Boger '351").

16. Regarding claim 2, the Kasahara publication clearly teaches **the method as claimed in claim 1** (see above). The Kasahara Publication does not explicitly teach the method **further comprising the step of: receiving at least one of a signal from a remote controller for remotely controlling the plasma display panel, a cable signal connected to a different media and a signal from a mode selection switch provided separately at the plasma display panel.**

17. In the same field of endeavor, Boger '351 clearly teaches the method **further comprising the step of: receiving at least one of a signal from a remote controller for remotely controlling the plasma display panel, a cable signal connected to a different media and a signal from a mode selection switch provided separately at the plasma display panel** (see Boger '351 at column 1, lines 58-end and continued at column 2, lines 1-10; additionally at column 8, lines 16-31 and illustrated in FIGs. 4 and 5).

18. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the selection method as taught by Boger '351 into the display method of the Kasahara Publication because both are within the same field of endeavor, and furthermore, for the commonly understood benefits of allowing a single display device to serve in two operational modes, thereby conserving space and redundancy of displays; additionally, Boger '351 method clearly optimizes viewing of television signals (see Boger '351 at column 2, lines 13-28).

19. Regarding claim 3, the Kasahara Publication in view of Boger '351 clearly teaches **the method as claimed in claim 1** (see above), **wherein said step of selecting the operation mode includes: determining said operation mode in response to said received signal** (see Boger '351 at but not limited to column 2, lines 28-42 describing receipt of signal and operation mode selection).

20. Regarding claim 12, the Kasahara Publication in view of Boger '351 clearly teaches **the driving apparatus as claimed in claim 11** (see above), **wherein said mode selector receives at least one of a signal from a remote controller for remotely controlling the plasma display panel, a cable signal connected to a different media and a signal from a mode selection**

switch provided separately at the plasma display panel (see Boger '351 at column 1, lines 58-end and continued at column 2, lines 1-10; additionally at column 8, lines 16-31 and illustrated in FIGs. 4 and 5), **and determines said operation mode in response to said received signal** (see Boger '351 at but not limited to column 2, lines 28-42 describing receipt of signal and operation mode selection).

21. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Kasahara Publication as applied to claim 1 above, and further in view of Shigeta et al., (US 6,369,782 B2) hereinafter referred to as "Shigeta '782".

22. Regarding claim 5, the Kasahara Publication clearly teaches **the method as claimed in claim 1** (see above). The Kasahara Publication does not explicitly teach **said sub-field arrangement includes: at least one selective writing sub-field for selecting on-cells in an address period; and at least one selective erasing sub-field for selecting off-cells in the address period.**

23. In the same field of endeavor, Shigeta '782 clearly teaches **said sub-field arrangement includes: at least one selective writing sub-field for selecting on-cells in an address period** (see at, but not limited to, column 2, lines 37-41; column 5, lines 23-37); **and at least one selective erasing sub-field for selecting off-cells in the address period** (see at, but not limited to, column 2, lines 37-42; column 5, lines 23-37).

24. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the subfield addressing as taught by Shigeta '782 into the driving method of the Kasahara Publication because both are within the

same field of endeavor, and furthermore, because the teaching of Shigeta '782 improves display contrast, a goal commonly sought through subfield addressing and continuously improved upon in the art (see Shigeta '782 column 2, lines 20-23).

25. Claims 6-10 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kasahara Publication in view of Shigeta '782 as applied to claims 1, 5, and 11 accordingly above, and further in view of Otobe et al., (US 6,144,364) hereinafter referred to as "Otobe '364").

26. Regarding claim 6, the Kasahara Publication in view of Shigeta '782 clearly teaches **the method as claimed in claim 5 (see above), wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: allowing the number of selective erasing sub-fields to be larger than the number of selective writing sub-fields** (see Shigeta '782 at FIGs. 9-13 further described in column 8, lines 43-end continued through column 10, lines 1-2, describing embodiments of selective erasure). The Kasahara Publication in view of Shigeta '782 does not explicitly teach **if said operation mode is an AV mode in which a motion extent of said data is large.**

27. In the same field of endeavor, Otobe '364 clearly teaches **if said operation mode is an AV mode in which a motion extent of said data is large** (see Otobe '364 at FIGs. 70-73, described at, but not limited to, column 40, lines 8-end and continued at column 41, 1-end).

28. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate motion detection method as taught by Otobe '364 into the display method of the Kasahara Publication in view of Shigeta '782 because

both are within the same field of endeavor, and furthermore, because the method as described by Otohe '364 would improve the gradation display and effectively prevent false contouring (see Otohe '364 at, but not limited to, column 6, lines 40-60).

29. Regarding claim 7, the Kasahara Publication in view of Shigeta '782 and further in view of Otohe '364 clearly teaches **the method as claimed in claim 5** (see above), **wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small** (see Otohe '364 at FIGs. 70-73, described at, but not limited to, column 40, lines 8-end and continued at column 41, 1-end), **then allowing the number of selective writing sub-fields to be larger than the number of selective erasing sub-fields** (see Shigeta '782, see at FIGs. 9-15 further described in column 10, lines 30 to end, describing embodiment of selective writing).

30. Regarding claim 8, the Kasahara Publication in view of Shigeta '782 further in view of Otohe '364 clearly teaches **the method as claimed in claim 1**(see above), **wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is an AV mode in which a motion extent of said data is large** (see Otohe '364 at FIGs. 70-73, described at, but not limited to, column 40, lines 8-end and continued at column 41, 1-end), **then selecting a first sub-field arrangement in which sub-fields are arranged to have a small contour noise at a moving picture** (see Shigeta '782 at FIGs. 9-13 further described in column 8, lines 43-end continued through column 10, lines 1-2, describing embodiments of selective erasure); **and if said operation mode is a PC mode in which a motion extent of said data is small** (see Otohe '364 at FIGs. 70-73, described

at, but not limited to, column 40, lines 8-end and continued at column 41, 1-end, describing selection of operation based on motion detection), **then selecting a second sub-field arrangement in which sub-fields are arranged to have a wider gray level expression range than the first sub-field arrangement** (see Shigeta '782, see at FIGs. 9-15 further described in column 10, lines 30 to end, describing embodiment of selective writing).

31. Regarding claim 9, the Kasahara Publication in view of Shigeta '782 further in view of Otobe '364 clearly teaches **the method as claimed in claim 1** (see above), **wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small** (see Otobe '364 at FIGs. 70-73, described at, but not limited to, column 40, lines 8-end and continued at column 41, 1-end describing path selection based on motion detection), **then controlling the number of sustaining pulses to be smaller than the number of sustaining pulses set in correspondence with an AV mode in which a motion extent of said data is large** (see Otobe '364 at FIGs. 70-73 for motion detection and path selection; see Shigeta '792 describing number of sustain pulses correlating with subfield arrangement at but not limited to, FIGs. 9-15 further described in column 8, lines 43-end continued through column 10, lines 1- 67).

32. Regarding claim 10, the Kasahara Publication in view of Shigeta '782 further in view of Otobe '364 clearly teaches **the method as claimed in claim 1** (see above), **wherein said step of differently controlling at least one of said sub-field arrangement and the number of sustaining pulses includes: if said operation mode is a PC mode in which a motion extent of said data is small** (see Otobe '364 for motion detection at but not limited FIGs. 70-73, described

at, but not limited to, column 40, lines 8-end and continued at column 41, 1-end), **then reducing the number of sustaining pulses** (see Shigeta '792 describing number of sustain pulses correlating with subfield arrangement at but not limited to, FIGs. 9-15 further described in column 8, lines 43-end continued through column 10, lines 1- 67) **such that said data can be displayed at an average brightness falling in 50% through 80% with respect to an average brightness of said data displayed on the plasma display panel in an AV mode in which a motion extent of said data is large** (see Otake '364 at FIG. 66, further described at column 35, lines 23-61).

33. Regarding claims 14-18, they are similar in scope to claims 6-10 respectively, differing only in that claims 14-18 are directed toward a driving apparatus whereas claims 6-10 are directed to method of driving the apparatus. In an effort to avoid redundancy of arguments previously presented, claims 14-18 are similarly analyzed as claims 6-10 respectively above. Claims 14-18 are therefore rejected under the same rationale. Note although the dependency of claim 18 does not mirror that of claim 10, it is nonetheless rejected using the same prior art used to reject claim 10 and is mapped accordingly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarvesh J. Nadkarni whose telephone number is 571-270-1541. The examiner can normally be reached on 8:00-5:00 M-Th EST.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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